DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/pera

NOTICE OF ACCEPTANCE (NOA)

Derbigum Americas, Inc.
4800 Blue Parkway
Kansas City, MO 64130

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.
This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Performance Modified Roof Systems over Wood Decks

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This renews NOA#11-0722.03 and consists of pages 1 through 19.
The submitted documentation was reviewed by Alex Tigera.

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: APP Modified Bitumen
Deck Type: Wood
Maximum Design Pressure -82.5 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

Product	Dimensions	Test Specification	Product Description
Derbigum GP	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum XPS	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor GP	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor XPS	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum GP/FR	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum XPS/FR	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor GP/FR	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor XPS/FR	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
DerbiBrite	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen fiberglass and polyester composite mat with an acrylic top coating membrane for torch application or Permastic cold adhesive application.
Derbibase	66' x 39.4"; roll weight: 90 lbs.	ASTM D 5147	APP modified bitumen glass fiber base sheet for mechanical attachment or Permastic cold adhesive application.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

Product	Dimensions	Test Specification	Product Description
Derbibase Ultra	49.5’ x 39.4”roll weight: 102 lbs.	ASTM D5147	APP modified bitumen glass fiber base sheet for mechanical attachment of Permastic cold adhesive application.
PRS Glass Base	108' x 36"; roll weight: 82 lbs.	ASTM D 4601	Asphalt coated fiberglass base sheet for use in hot-mop, mechanically fastened or Permastic cold adhesive application.
PRS Glass Ply IV	180' x 36"; roll weight: 60 lbs.	ASTM D 2178 Type IV	Asphalt coated fiberglass ply sheet for use in hot-mop, or mechanically fastened or Permastic cold adhesive application.
PRS Glass Ply VI	180' x 36"; roll weight: 60 lbs.	ASTM D 2178 Type IV	Asphalt coated fiberglass ply sheet for use in hot-mop or mechanically fastened or Permastic cold adhesive application.
PRS Modified Base	180’ x 36” roll weight: 82 lbs.	ASTM D 5147	SBS polymer modified bitumen base sheet.
Bitutak MB	33’ x 39.4 roll weight: 89 lbs	ASTM D 6222	APP polymer modified bitumen polyester reinforced membrane.
Bitutak MB (Mineral)	39.4" x 33' roll weight: 103 lbs.	ASTM D 6222	Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane
Permastic	5-gallon pails 55-gallon drums 350-gallong tanks		Asphalt-based adhesive formulated especially for adhering Derbigum/Derbicolor roofing membranes, Derbibase/Ultra , glass ply sheets and glass base sheets.
Permastic IA	5-gallon pails 55-gallon drums 350-gallong tanks		Asphalt-based adhesive formulated especially for adhering base sheets and Derbiboard insulation to concrete, non-nailable substrates or polyisocyanurate.

APPROVED INSULATIONS:

TABLE 2

Product	Dimensions	Test Specification	Product Description	Manufacturer
ACFoam II	various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
ACFoam III	various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
Derbiboard	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
Derbiboard CA	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
Derbiboard Composite	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
E'NERG'Y PSI-25	various	TAS 110	Polyisocyanurate foam insulation	Johns Manville
High Density Wood Fiberboard	various	TAS 110	Wood fiber insulation board	Generic
Multi-Max-3	various	TAS 110	Polyisocyanurate foam insulation	Rmax Inc.
Perlite Insulation	various	TAS 110	Perlite insulation board	Generic
Securock	various	TAS 110	Water resistant gypsum board	USG

APPROVED FASTENERS

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	DekFast #12 & # 14 Fasteners and Plate	Insulation Fasteners for wood decks	Various	SFS Intec
2.	Trufast HD (#14) Fastener, Trufast SS HD (#14) Fastener, Trufast MPH-3, Trufast Plastic Plates	Insulation fasteners for wood decks.	Various	Tru-Fast
3.	CR Assembled Base Sheet Fastener (1.2)	Base sheet fastening assembly	Various	OMG, Inc.
4.	#12 Standard Roofgrip & OMG Heavy Duty	Base sheet fastening assembly	Various	OMG, Inc.
5.	Perlok CR Base Sheet Fastener (1.2)	Base sheet fastening assembly	Various	Derbigum Americas
6.	Perlok #12, Perlok HD	Base sheet fastening assembly	Various	Derbigum Americas

APPROVED SURFACING:

TABLE 4

Product	Test Specification	Product Description	Manufacturer
APOC 302	ASTM D 1227 Type IV	Asphalt emulsion coating	Gardner Asphalt Corp.
APOC 400	TAS 138	Flashing Cement	Gardner Asphalt Corp.
Karnak #97 AF	TAS 121	Roof coating	Karnak

EVIDENCE SUBMITTED

Test Agency	Test Identifier	Description	Date
Exterior Research & Design, LLC	10720.10.97-1	Uplift TAS 114	10/17/97
Factory Mutual Research Corporation	2W3A6.AM 2Y3A2.AM	Class 4470	02/21/97
Factory Mutual Research Corporation	2B5A5.AM	Class 4470	05/14/97
Factory Mutual Research Corporation	1D7A4.AM 2B5A7.AM	Class 4470	11/9/98 03/1/99
Factory Mutual Research Corporation	JI3007274 JI 3003642 JI 3001472	Class 4470	2/7/01
IRT-ARCON	PC03-001 PC03-002	Uplift TAS 114-95	01/17/03
Factory Mutual	3017037	Class 4470	09/30/05
Factory Mutual	ID01669-267	Windstorm Classification Name Change	10/14/05
Factory Mutual	ID 1039-267	Name Change	07/08/04
Factory Mutual	JI 3024750	Fire/Windstorm Classification	06/21/06
Factory Mutual	JI 3027878	Windstorm Classification	01/22/07
Atlantic Caribbean Roof Consulting, Inc.	ACRC 07-	Windstorm Classification	05/01/07

APPROVED ASSEMBLIES

Membrane Type: APP

Deck Type 3I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank.

System Type B(1): Base layer of insulation mechanically attached, optional top layer adhered with approved asphalt, Permastic, or Permastic IA.

All General and System limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3		
Minimum 1.5" thick	**1, 2, 3, 4, 5, 6**	**1:3ft^2**
AC-Foam II, AC-Foam III		
Minimum 1.3" thick	**1, 2, 3, 4, 5, 6**	**1:3ft^2**
E"NRG"Y-2, PSI-25		
Minimum 1.4" thick	**1, 2, 3, 4, 5, 6**	**1:3ft^2**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Derbiboard, Derbiboard CA, Derbiboard composite, AC-Foam II, AC-Foam III		
Minimum 1.5" thick	**N/A**	**N/A**
Perlite Insulation		
Minimum ¾" thick	**N/A**	**N/A**
High Density Wood Fiber		
Minimum ½" thick	**N/A**	**N/A**

Note: Apply top layer of insulation in a full mopping of any approved mopping hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2, Permastic, Permastic IA or Permastic IA Strips. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of PRS Glass base, PRS Ply IV, VI, or #28, GAF #75 Base Sheet or Performance Modified Base Sheet, PRS Glass Base, Derbibase or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI, or #28 or Derbibase, PRS Glass Ply IV, VI, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR, or Derbigum/Derbicolor XPS-FR, DerbiBrite, Bitutak MB, Bitutak MB Mineral torch applied or Permastic to base sheet.

Surfacing: Install one of the following where required for fire classification, except over Derbigum GP/XPS-FR, Derbicolor GP/XPS-FR, or DerbiBrite:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%..

2. APOC 400 applied at 1.3 gal./sq.. Per ma-Cool, Karnak 97 applied at an application rate of 1.5 gal./sq.. Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 applied at an application rate of 3 gal./sq..

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: APP

Deck Type 3I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank.

System Type B(2): Base layer of insulation mechanically attached, optional top layer adhered with approved asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3		
Minimum 1.5" thick	**1, 2, 3, 4, 5, 6**	**1:45ft^2**
AC-Foam II, AC-Foam III		
Minimum 1.3" thick	**1, 2, 3, 4, 5, 6**	**1:45ft^2**
E"NRG"Y-2, PSI-25		
Minimum 1.4" thick	**1, 2, 3, 4, 5, 6**	**1:45ft^2**

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Perlite Insulation		
Minimum ¾" thick	**N/A**	**N/A**
High Density Wood Fiber		
Minimum ½" thick	**N/A**	**N/A**

Note: Apply top layer of insulation in a full mopping of any approved mopping hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One ply of PRS Glass base, PRS Ply IV, VI, or #28, GAF #75 Base Sheet or Performance Modified Base Sheet, PRS Glass Base, Derbibase or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI, or #28 or Derbibase, PRS Glass Ply IV, VI, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR, or Derbigum/Derbicolor XPS-FR, DerbiBrite, Bitutak MB, Bitutak MB Mineral torch applied or Permastic to base sheet.

Surfacing: Install one of the following where required for fire classification, except over Derbigum GP/XPS-FR, Derbicolor GP/XPS-FR, or DerbiBrite:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%..

2. APOC 400 applied at 1.3 gal./sq.. Perma-Cool, Karnak 97 applied at an application rate of 1.5 gal./sq.. Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 applied at an application rate of 3 gal./sq..

Maximum Design Pressure: -60 psf. (See General Limitation #9)

Membrane Type: APP

Deck Type 3I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank.

System Type B(3): Base layer of insulation mechanically attached.

All General and System limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3		
Minimum 1.5" thick	**1, 2, 3, 4, 5, 6**	**1:45ft^2**
AC-Foam II, AC-Foam III		
Minimum 1.3" thick	**1, 2, 3, 4, 5, 6**	**1:45ft^2**
E"NRG"Y-2, PSI-25		
Minimum 1.4" thick	**1, 2, 3, 4, 5, 6**	**1:45ft^2**

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of PRS Glass base, PRS Ply IV, VI, or #28, GAF #75 Base Sheet or Performance Modified Base Sheet, PRS Glass Base, Derbibase or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI, or #28 or Derbibase, PRS Glass Ply IV, VI, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR, or Derbigum/Derbicolor XPS-FR, DerbiBrite, Bitutak MB, Bitutak MB Mineral torch applied or Permastic to base sheet.

Surfacing: Install one of the following where required for fire classification, except over Derbigum GP/XPS-FR, Derbicolor GP/XPS-FR, or DerbiBrite:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%..

2. APOC 400 applied at 1.3 gal./sq.. Perma-Cool, Karnak 97 applied at an application rate of 1.5 gal./sq.. Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 applied at an application rate of 3 gal./sq..

Maximum Design Pressure: -67.5 psf. (See General Limitation #9)

Membrane Type: APP

Deck Type 3I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank.

System Type B(4): Base layer of insulation mechanically attached, optional top layer adhered with OlyBond 500.

All General and System limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3		
Minimum 1.5" thick	**3, 4, 5, 6**	**1:33ft^2**
AC-Foam II, AC-Foam III		
Minimum 1.3" thick	**3, 4, 5, 6**	**1:33ft^2**
E"NRG"Y-2, PSI-25		
Minimum 1.4" thick	**3, 4, 5, 6**	**1:33ft^2**

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Securock		
Minimum ¼ " thick	**N/A**	**N/A**

Note: Apply (optional) top layer of insulation in OlyBond 500 ¾" to 1" wide beads spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side faceing down.

Base Sheet: Derbibase or Derbibase Ultra or Derbigum GP adhered to the insulated substrate Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Ply Sheet: (Optional) One or two plies of Derbibase, PRS Glass Ply IV, VI, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra adhered to the insulated substrate with Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR, or Derbigum/Derbicolor XPS-FR, DerbiBrite, Bitutak MB, Bitutak MB Mineral torch applied or Permastic to base sheet.

Surfacing: Install one of the following where required for fire classification, except over Derbigum

GP/XPS-FR, Derbicolor GP/XPS-FR, or DerbiBrite:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%..

2. APOC 400 applied at 1.3 gal./sq.. Perma-Cool, Karnak 97 applied at an application rate of 1.5 gal./sq.. Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 applied at an application rate of 3 gal./sq..

Maximum Design Pressure: -82.5 psf. (See General Limitation #9)

Membrane Type: APP

Deck Type 3I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank.

System Type C(1): All layers or insulation simultaneously attached.

All General and System limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3 Minimum 1.5" thick	**N/A**	**N/A**
AC-Foam II, AC-Foam III Minimum 1.3" thick	**N/A**	**N/A**
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	**N/A**	**N/A**

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Derbiboard, Derbiboard CA, Derbiboard composite, AC-Foam II, AC-Foam III Minimum 1.5" thick	**1, 2, 3, 4, 5, 6**	**1:3ft^2**
Perlite Minimum ¾ " thick	**1, 2, 3, 4, 5, 6**	**1:1.6ft^2**
High Density Wood Fiber Minimum ½" thick	**1, 2, 3, 4, 5, 6**	**1:4ft^2**

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of PRS Ply IV, VI, or #28, GAF #75 Base Sheet or Performance Modified Base Sheet, PRS Glass Base, Derbibase or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI, #28, Derbibase, PRS Glass Ply IV, VI, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ±

15% or Permastic.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR, or Derbigum/Derbicolor XPS-FR, Bitutak MB, or Bitutak MB Mineral torch applied or Permastic to base sheet.

Surfacing: Install one of the following where required for fire classification, except over Derbigum GP/XPS-FR, Derbicolor GP/XPS-FR, or DerbiBrite:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%..

2. APOC 400 applied at 1.3 gal./sq.. Perma-Cool, Karnak 97 applied at an application rate of 1.5 gal./sq.. Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 applied at an application rate of 3 gal./sq..

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: APP

Deck Type 3I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank.

System Type D(1): All layers of insulation and base sheet simultaneously attached.

All General and System limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Derbiboard, Derbiboard CA, Derbiboard composite, Multi-Max-3 Minimum 1.5" thick	**N/A**	**N/A**
AC-Foam II, AC-Foam III Minimum 1.3" thick	**N/A**	**N/A**
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	**N/A**	**N/A**
High Density Wood Fiber Minimum ½" thick	**N/A**	**N/A**
Perlite Minimum 2" thick	**N/A**	**N/A**

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Base Sheet: Two plies of Perma Ply IV, VI, R, PRS Glass Ply IV, VI, #28, PRS Modified base sheet, PRS Glass Base Sheet, Derbibase, or Derbibase Ultra mechanically fastened to the deck through the insulation as detailed below.

Fastening: Fasten base sheet with Olympic Standard or Tru Fast MP-3 insulation plates and fasteners 12" o.c. at a 4" side lap 18" o.c. and two rows in the center of the sheet 12 in. from each base sheet side lap.

Ply Sheet: PRS Glass Ply IV, PRS Glass Ply VI, PRS Modified Glass Base Sheet, Derbibase or Derbibase Ultra.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR, or Derbigum/Derbicolor XPS-FR, or Bitutak MB, or Bitutak MB Mineral torch applied or Permastic to base sheet.

Surfacing: Install one of the following where required for fire classification, except over Derbigum GP/XPS-FR, Derbicolor GP/XPS-FR, or DerbiBrite:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%..

2. APOC 400 applied at 1.3 gal./sq.. Perma-Cool, Karnak 97 applied at an application rate of 1.5 gal./sq.. Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 applied at an application rate of 3 gal./sq..

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: APP

Deck Type 3I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank.

System Type E(1): Base sheet mechanically fastened.

All General and System limitations apply.

Base Sheet: One ply of Perma Ply #28, Celotex Vaporbar, GAFGlas #75, PRS Modified Base Sheet, PRS Glass Base Sheet, PRS Ply VI, Derbibase, or Derbibase Ultra mechanically fastened to the deck as detailed below.

Fastening: Base sheet shall be lapped 4" and fastened with approved roofing nails and tin caps 9" o.c. in the lap and two rows staggered in the center of the sheet 18" o.c..

Ply Sheet: PRS Ply IV, PRS Ply VI, PRS Modified Base Sheet, PRS Glass Base Sheet, Derbibase, or Derbibase Ultra.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, or Derbigum/Derbicolor GP-FR, or Derbigum/Derbicolor XPS-FR torch applied or Permastic to base sheet.

Surfacing: Install one of the following where required for fire classification, except over Derbigum GP/XPS-FR, Derbicolor GP/XPS-FR, or DerbiBrite:

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15%..

2. APOC 400 applied at 1.3 gal./sq.. Perma-Cool, Karnak 97 applied at an application rate of 1.5 gal./sq.. Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 applied at an application rate of 3 gal./sq..

Maximum Design Pressure: -45 psf. (See General Limitation #9)

WOOD DECK SYSTEM LIMITATIONS:

1. A slip sheet is required with Ply 4 and Ply 6 when used as a mechanically fastened base or anchor sheet.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer.
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE